




REPORT
ON THE
HEALTH OF THE BOROUGH
OF
GREAT YARMOUTH,
FOR THE YEAR 1881.

BY
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TO THE GREAT YARMOUTH URBAN SANITARY AUTHORITY.

GENTLEMEN,

I have the honor of presenting to you my Report upon the Health of this Borough for the year 1881.

The great sanitary event of the year, not only in Yarmouth, but throughout the kingdom, was the taking of the CENSUS. The National Census.

At no previous date has this been of so much value for sanitary purposes as now, because it finds organizations, constituted by law, for the preservation of the health of the people in every town and place, and to these it supplies the only reliable basis for estimating the salubrity or otherwise of the district. Its value for Sanitary purposes.

With the data which the census affords, sanitary action may be guided more directly, and to better purpose than would be possible without it.

In so far as this borough is concerned the following census facts have come to my knowledge. The Census of Yarmouth.

For the purpose of taking the census the borough was divided into 48 districts, and an enumerator employed in each. In addition to these, the Workhouse, Naval Asylum, and Southtown Barracks, were each treated as a separate district, with an official enumerator. How taken.

Discrepancy
between local
and London
figures. How
accounted for.

The figures relating to each enumeration district are in my possession, but their totals fall short of the numbers given out by the authorities in London. This may be accounted for, in great measure, by the fact that the officers of the Custom House in this town, who took the census of our population on board ships, both in port and at sea, sent the enumeration papers they received direct to London, and the Central Authority themselves divided the totals of the ship returns amongst the three registration sub-districts, so far as they are included within this borough. Hence it is that our total population is now considered some few hundreds in excess of the number published in the local papers immediately after the census was taken, and which gave some dissatisfaction on account of its smallness

Official return
of Yarmouth
Census.

The following is a copy of *the official notification* sent to the Town Clerk.

MUNICIPAL BOROUGH AND URBAN SANITARY DISTRICT OF GREAT YARMOUTH.

CIVIL PARISH.	Area in Statute Acres.	HOUSES.			PERSONS.		
		In- habited.	Un- inhabited	Building.	Males.	Females.	Total.
Gorleston	2175	1922	163	3	4287	4714	9001
Gt. Yarmouth.	1510	8182	433	60	17,459	19,692	37,151
FULL TOTAL...	3,685	10,104	596	63	21,746	24,406	46,152

The total given in the foregoing table for the parish of Great Yarmouth does not agree with the figures given in the quarterly reports of the Registrar General, which are for the North district 20,612, South 16,601, total 37,213. From this diversity of official figures I imagine 'tis impossible to arrive at an exact calculation of the people, and therefore for the purposes of this report, I shall adopt the Registrar General's figures for the two districts in the parish of Great Yarmouth, and the figures given in the above table for the parish of Gorleston, which together gives a total of 46,214.

Not agreeing with figures given by Registrar General.

A Census arrived at.

Presuming these figures to be fairly correct 'tis well for a moment to note the increase in the population of the borough during the last ten years.

In all about 4395 more persons stand to the credit of the borough of Great Yarmouth in 1881 than in 1871. This increase is most marked in Gorleston, where about 2348 souls have been added.

A ten years' increase.

Next the South district which shows an increase of about 1096. Lastly the North district which shows an increase of 951

The female portion of our population very much exceeds the male. They stand as about 8 to 7, in other words we have a surplus of about 2,660.

Females in excess of males

In order to observe more widely the growth of the borough I have prepared the following *tables of past censuses*. I believe it to be correct, having spared no pains to make it so.

A hundred years' Census table.

By the Parliamentary and Municipal Reform Acts of 1832, and 1835, the parish of Gorleston was added to the borough of Great Yarmouth.

CENSUSES OF THE BOROUGH

During the last Hundred Years.

PARISH	1784	1801	1811	1821	1831	1841	1851	1861	1871	1881
Gt. Yarmouth	12608	14854	17977	19004	22028	24259	26881	30338	35166	37213
Southtown	Included in Yarmouth. No separate Census in Southtown until 1831.				1304	1428	1412	1714	2251	3060
Gorleston		1728	1714	1928	2116	2351	2686	2758	4402	5941
TOTAL.....		16682	19691	21971	25448	28038	30879	34810	41819	46214

6

NUMBER OF HOUSES WITHIN THE BOROUGH.

DISTRICT	1821	1831	1841	1851	1861	1871	1881
Great Yarmouth.....	4158	4784	5408	6328	7173	7716	8675
Gorleston and Southtown...	677	794	815	948	975	1437	2088
TOTAL.....	4835	5578	6223	7276	8148	9153	10763

BIRTHS AND DEATHS.

During the year 1881 there were 1580 births and 889 deaths registered within this borough, thus giving an increase of 691 souls.

The birth-rate for the year was 34·18

The death-rate „ 19·23

The rate of increase „ 14·95

Eighty-five of the births and thirty of the deaths were those of illegitimate infants. Illegitimacy in Yarmouth.

For several years past I have called attention to the humiliating facts contained in the foregoing paragraph ; *over five per cent. of the births and over three per cent. of the total deaths* are thus accounted for. Its extent. But by far the most serious feature in the case is *the large proportion of deaths*, which occur among these children.

Thirty per cent. of them die before they are a year old. Whereas the mortality among other infants is barely half as much. Its mortality

In addition to being born in shame and misery and probably contaminated with the diseases of their parents, these helpless innocents are subjected to such a cruel neglect that their chances of survival are very small indeed, in fact, in many instances were their deaths required into, something very like criminality would be discovered. The Legislature has taken a short step towards suppressing this glaring iniquity in its enactments against “baby farming.” But the law ought to go very much further. The homes of all illegitimate children should be made known to the Medical Officer of Health, in order that he may have Its morality.
Its criminality.
A deterrent prosecution.

them under his surveillance, and in cases of death a Coroner's inquisition should be held if the Medical Officer thinks it desirable.

The following table gives *the totals of the Births and Deaths, for each quarter of the year, in each of the three registration districts.*

BIRTHS.							DEATHS.						Increase per 1,000
DISTRICT.	13 Weeks ending.				TOTAL.	Per 1,000.	13 Weeks ending					Per 1,000.	
	2nd April.	2nd July.	1st Oct.	31st Dec.			2nd April.	2nd July.	1st Oct.	31st Dec.	TOTAL.		
NORTHERN ... Pop. 20,612	151	145	189	154	639	31·00	98	93	110	129	430	20·86	10·14
SOUTHERN ... Pop. 16,601	169	132	132	160	593	35·92	84	75	70	92	321	19·33	16·39
GORLESTON AND SOUTHTOWN. Pop. 9,001	102	70	84	92	348	38·88	46	29	35	28	138	15·33	23·33

As usual the Gorleston district shows the largest number of births in proportion to its inhabitants, of any of the three districts within the borough. The same district has also the lowest death rate.

The deaths in the Northern district include 70 at the workhouse and 28 inquests.

Those in the Southern district include 15 at the Public Hospital, 15 at the Naval Asylum, and 19 inquests.

Those in Gorleston and Southtown include 9 inquests.

TABLE OF DEATHS

During the Year 1881, in the Urban Sanitary District of GREAT YARMOUTH, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.

Names of Localities adopted for the pur- pose of these Statis- tics ; public institu- tions being shown as separate localities.	Population at all ages.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.		MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS IN PERSONS UNDER FIVE YEARS OF AGE.																											
	Census 1881.	Registered Births.	At all ages	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Con. Fevs																		Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Injuries.	Other Diseases.
										Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic")	Whooping Cough.	Enteric or Typhoid.	Other or Doubtful.	Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Phthisis.								
NORTH DISTRICT } ...	20,612	639	430	112	52	13	14	106	133	Under 5.	1	9	7	1	1	1	0	0	23	0	0	1	0	0	35	0	2	83			
				5 Upwds.	4	0	2	0	0	0	3	0	3	1	5	1	3	27	41	24	13	138									
SOUTH DISTRICT } ...	16,601	593	321	75	46	14	15	84	87	Under 5	0	7	6	1	3	3	2	1	17	0	0	1	0	0	22	0	1	59			
				5 Upwds.	1	7	3	1	1	1	3	1	1	0	4	0	6	20	26	17	14	99									
GORLESTON & SOUTHTOWN }	9,001	348	58	58	10	3	8	29	30	Under 5	0	0	2	0	0	0	0	0	6	0	0	0	0	0	8	0	0	52			
				5 Upwds.	0	0	1	1	0	0	1	0	0	0	2	0	12	2	5	5	41										
TOTALS.....	46,214	1580	889	245	108	30	37	219	250	Under 5	1	1	15	2	4	4	2	1	46	0	0	2	0	0	65	0	3	194			
										5 Upwds.	5	1	6	2	1	1	7	1	4	1	9	3	9	59	69	46	32	278			

The cardinal figures for the last seven years are here given in juxta-position, for the sake of comparison.

	1875.	1876.	1877.	1878.	1879.	1880.	1881.
No. of Births	1434	1490	1490	1553	1568	1561	1580
No. of Deaths	1036	920	900	1057	830	959	88
Birth-rate	31'8	32'53	31'93	32'69	32'32	31'53	34'18
Death-rate	23'02	20'01	19'29	22'25	17'11	19'37	19'23
Rate of Increase	8'7	12'45	12'64	10'44	15'21	12'16	14'95
Zymotic Deaths	201	155	109	147	79	173	144
Ditto, Death-rate	4'6	3'3	2'3	3'07	1'60	3'49	2'46

PARTICULARS OF THE DEATHS.

The table on the opposite page, which has been prepared by direction of the Local Government Board, classifies the ages of the persons who died last year, and indicates the causes of the deaths of many of them.

The causes specified are those more usually influenced by the sanitary surroundings of the deceased, and to which the attention of the sanitary Authority should be more immediately directed.

You will notice that the *Zymotic Death* rate was 2'46, and that we had some deaths from nearly all of the Zymotics mentioned in the foregoing table. Fortunately none of the diseases took a very fast hold of the population, and the most important of them were well hunted up by your officers. The most marked success was in combat with an outbreak of *small pox*, which occurred here early last spring.

Small Pox in
Yarmouth.

SMALL POX.

In the Autumn of 1880 an Ostend fishmerchant came to Yarmouth for purposes connected with the

How it
occurred.

First case. fishing. He took lodgings in the South part of the town near the Queen's road, and in a few days fell ill with small pox. He evidently brought the disease in his blood, for he had not been here long enough to have contracted it in this town, and it was very rife in Ostend at the time he left there.

The medical man who had charge of the Ostender did not think it advisable to allow the man's removal to the Infectious Diseases Hospital. The best precautions possible to take in a private house were adopted, but I regret to say the medical man's assistant, who attended the case, was the next person to fall ill, and this patient was by his employer's permission quickly removed to the Infectious Diseases Hospital on December 8th.

Third case. A Yarmouth fishmerchant, having business with the Ostend man, called upon him during his convalescence and by this means the Yarmouthian took the disease. This case also was promptly removed to the Infectious Diseases Hospital, on December 30th. The houses of all three of the afore mentioned patients were thoroughly disinfected and cleansed, and no further extension of the disease occurred from either of them.

Apparent arrest. No further case was reported for more than two months when early in March two or three cases were discovered in a new house at the extreme north of the town. One of the patients, who was able to be removed, was taken to the Infectious Diseases Hospital, another was convalescent, having passed through the disease before this nest of infection was discovered, but a man, the head of the house was at

the point of death, and did die of the disease on March 6th. It is somewhat singular that on the 26th of January, previous, a girl aged 16 years, died at the same house of what was certified to be "erysipelas and debility." Two other cases of small pox occurred in this house subsequently to March 6th, and were removed to the Hospital.

And contaminated an household.

Seventh and Eighth cases.

As I must several times refer to this family, I will call it "X."

Wherefrom it spreads.

On the 10th of March the captain of a vessel then lying in Yarmouth Roads was received at the Hospital, suffering with small pox he had contracted in London. As he passed direct from the ship to the Hospital no one was contaminated by him.

Ninth case, from sea.

The next case which turned up was one in Cobholm Island, and the medical man under whose care this case fell reported it immediately, and it was at once removed to the Hospital. No other case of small pox happened in Cobholm Island. Undoubtedly the infection in this case was taken from the X family, for a member of it had come in contact with the person from Cobholm at the factory, where both worked and associated together. The regulations in force at the factory "that all persons employed there shall be well and efficiently vaccinated or re-vaccinated before commencing work, and no person known to be suffering with an infectious disorder or living in a house where such exists, shall continue working at the factory," operated most beneficially at this juncture, and prevented an extension of the disease from that place.

Tenth case.

Factory Regulations.

- Eleventh case. This same X family contaminated the man who carried coal to their house, but he had the disease very slightly and rapidly recovered in the Hospital.
- Twelfth case. The next case was a person living near X and who had unwittingly come in contact with the afflicted folks, not knowing the nature of their malady. This person was removed to the Hospital and thirteen
- Thirteenth case. days after was joined there by his brother, who resided in a row in the south part of the town, but who had visited his relative and taken the disease before the latter's removal to the Hospital.
- Fourteenth case. A relative of X living in a row in the centre of the town, and who visited the sick house, fell ill with the disease and died of it at the Hospital on April 5th.
- Fifteenth case. About this time, a young lady, an assistant in a drapery establishment in this town fell ill of small pox and was conveyed by her friends to her home in Norwich. This young lady had caught the disease from the mother of the X family in course of serving her with a black bonnet which she purchased at the Shop.
- Sixteenth, Seventeenth, and Eighteenth cases. On April the 16th, a family living in Southtown-in-Norfolk, was reported as suffering with small pox.
- Southtown-in-Norfolk. Southtown-in-Norfolk is an outlier of the parish of Gorleston in Suffolk, and being beyond the limits of the borough, is cared for in sanitary matters by the
- Its Sanitary Authority. Mutford and Lothingland Rural Sanitary Authority. This is very much to be regretted, for Southtown-in-Norfolk together with Runham Vauxhall which
- Its identity with Yarmouth. adjoins it, are only separated from the town of Yarmouth by the river Bure. Very many of the labouring

classes of Yarmouth reside in this locality, and the inhabitants of Yarmouth are very much interested in the healthiness of their neighbours over the Bure, for whatever epidemic afflicts the one spreads to the other. Dr. Airy several years ago pointed this out, and urged the union of the districts, at least, for sanitary purposes. But to the present time they are distinct, and sanitary neglect is as patent on the west of the Bure as it was when Dr. Airy visited the place.

Dr. Airy's
Report

The family above mentioned could not be removed by the Mutford and Lothingland Rural Sanitary Authority, as they had no Hospital to remove the family to, and had it not been that you granted the use of your Infectious Diseases Hospital for their immediate accommodation, the family would have most certainly contaminated the whole neighbourhood they were in. The Local Government Board should take some decided step with respect to the sanitary condition of this outlier district on the west of the Bure, otherwise this town is never secure, no matter how perfect your sanitary arrangements may be.

It appeared more than probable this family had been contaminated by X, as members of each were known to each other, and associated together. As both of these families were of the lower and more ignorant classes one can hardly be surprised at the careless manner in which several of their members exposed themselves in public places. One of the girls was reported as attending Orange fair with the pastures still upon her. The only wonder is they did not carry the disease further a field.

Culpable
Exposure of
Infected
Persons.

The poor woman from Southtown-in-Norfolk died the day after her admission to the Hospital and her infant 12 days later.

Nineteenth
case.

About the middle of April a young woman residing in a row in the central part of the town died there of small pox. The case was not reported until the disease was too far advanced to admit of her removal to the Hospital. The infection in this case had come from one of the families mentioned in the previous paragraph and in the careless manner indicated. This patient's lover persisted in visiting her during her illness and very shortly after her death he exhibited the disease in its very worst form. He was early removed to the Hospital and there went through a most painful and prolonged illness. He was in the Hospital just eleven weeks.

Twentieth
case.

Twenty-first
case.

Twenty-second
case.

Twenty-third
case.

Twenty-fourth
case.

Twenty-fifth
case.

Early in May a tradesman's wife from North-Gate road was admitted to the Hospital suffering severely with small pox. A few weeks later on her son joined her there with the same disease, and three weeks later still another son of hers was admitted. The infection to this family was somewhat difficult to trace, but it was believed to have been communicated to them by a lad entering their shop and who was afterwards suspected to have passed through a very slight attack of the disease, although it was not recognised at the time. There were several very mild cases in different parts of the town which fell under the observation of no medical man, as the cases were too mild to cause the patients to feel ill enough to seek medical aid, and consequently they were not recognised. Such a case arose in the person of a lad living in Burnt lane,

at Gorleston, but who worked upon some new buildings near Estcourt road, and who undoubtedly had taken the malady from a mild unrecognised case. However, the lad, although he suffered so slightly from the disease that his mother mistook it for water-pock and called in no medical man, infected his mother, and she taking the disease very severely died at the Hospital five days after her removal there. This death took place on the 24th of June, and since then no other case has been heard of in Yarmouth.

Twenty-sixth
case.

In all twenty-three small pox patients passed through the Hospital, four of them dying there. Considering the very severe form of the disease the majority of the patients underwent, the mortality, though large, was much smaller than would have been the case had the patients remained in their homes, with the very scant comforts and nursing there obtainable. Not only to the patients themselves was the care taken of them in the Hospital a decided benefit, but the whole town profited by their early removal, in escaping from what might have been a very fatal epidemic. Only two patients died of the disease in private dwellings in the town, and neither of these cases were reported at the commencement of their illnesses, when it was possible to have removed them.

Total of
Hospital cures

Their
Mortality.

Treatment in
Hospital, best
for Patient and
security to
inhabitants
outside.

During the epidemic of small pox which swept through the town in 1871, and 1872 ; there were received at the temporary Small Pox Hospital at that time erected on the South Denes, about 98 patients of whom 10 or 11 died. Had there been at

The Epidemic
of 1871 and 72,
and its extent.

that time so excellent a Hospital as we have now, and so prompt use made of it as last spring, probably many more lives would have been saved.

The probable extent of the outbreak of 1880 and 1881 did not exceed thirty in all.

Lessons
desirable from
the
experiences of
last spring.

The foregoing narrative illustrates the great danger which even one case of infectious disease may be to the community in which it occurs, if allowed to remain there. Had the Ostender been removed to the Hospital as soon as his disease was recognised, probably no other case would have happened. I obtained very satisfactory evidence of the continuity of the infection in the majority of the cases I had knowledge of, and in many of them I discovered evident contact. The most difficult cases to get hold of are the very mild ones, and frequently these are the most dangerous to the people around.

Notification of
Disease faulty.

Even when "the notification of the infectious diseases" is made compulsory, some of these very mild unrecognised cases will escape "notification."

A Suggestion.

If you were to offer a small reward to the first informant of an outbreak of infectious disease, as is done I believe in cases of fire, no doubt we should hear of fevers, &c., much more readily than we do now, and could act more promptly and therefore more efficiently.

An Epidemic
of
Sore Throat.

During the early and driest part of last Summer a curious EPIDEMIC OF SORE THROAT, very much resembling *mild Diphtheria*, spread over the South part of the town.

A great number of cases of illness occurred, but in no instance was it directly fatal. How far it assisted other maladies to a fatal termination I cannot say. By several medical men, who saw many of the patients, the disease was attributed to the inhalation of sewer gas, which was at the time most liberally given off by the southern sewers.

Its probable
cause.

Dr. Ryley tells me he had five cases in one house "within a short distance of a drain, that, for some time had been emitting a most disgusting effluvium."

From the mild and non-fatal character of the disease, none of my medical friends thought it necessary to remove their patients to the Infectious Diseases Hospital, and therefore I got but little information of the whereabouts of the cases, till they had recovered. From what information I did obtain I fully endorse the opinion that the disease was caused by breathing sewer gas. I am not surprised such was the case. I only wonder there is not more disease in the town springing from the stench from the sewers. The site of the "New Town" outside the walls is very flat, and the sewers draining it are very long and of hardily any fall, hence it is they are more or less choked with sand and filth. The sluggish stream flowing through them is not nearly sufficient to cleanse them. A complete systematic examination of all the sewers should be made, and the recommendation contained in the report I made a few years ago should be carried out.*

* The Report referred to, somewhat abridged, runs as follow :—

"The attention of the Sanitary Authority is frequently directed, during the summer months, to the offensive character of several of the

public sewers. The following general account of the sewers will show how the nuisance originates, and at the same time indicate its remedy.

The new town, outside the town wall, is drained principally by two large main sewers, commencing about Regent road and running respectively north and south, gradually converging to the north-west and south-west, and finally taking a direct west course to enter the river near the northern and southern extremities of the town wall. These sewers are called the "north" and "south" sewers, and together form a semi-circle, completely encompassing the old town on the north, east, and south sides.

The flatness of the ground they traverse, and the length of these two sewers, preclude them having much fall, but the inclination, what there is of it, is towards the north and south from Regent road. In the course of these large sewers many lesser ones enter them from right and left. It is into these smaller sewers and their numerous branches that the house drains, &c., empty themselves. The further these lesser sewers ramify from the mains the less their calibre and the less their fall; in fact some of the very distant small drains are at a dead level.

The area thus drained by the north and south sewers and their branches—at the level of the sewers—will represent a crescentic valley, stretching round the north, east, and south sides of the town.

The Regent road represents a ridge crossing the valley well nigh its middle, and giving a watershed towards the north and south. The Marine drive and locality along the beach forms the east border of the valley, whilst the district adjacent to the town wall forms the opposite border.

The district representing the east side of the drainage valley is the most important of the whole town, being covered with mansions, terraces, hotels, and the best lodging houses. The nearer the sea the better class of house; but nearness to the sea also means the greatest distance from the main sewers and the least possible fall for the house drains.

This arrangement is most unfortunate, for the numerous waterclosets of hotels and large lodging houses need ample drains at a good fall. Also being placed on the edge of the drainage valley, and therefore at the highest point and end of the drainage system, the sewer gas naturally collects more especially in the drains and sewers about these houses, and escapes into the interior of many of them through the watercloset soil-pipe, water-spout, and many other means of ingress.

It must also be remembered that the sewers empty themselves into a tidal river, and therefore during the time the tide is up no exit of sewage can take place. The sewage thus shut up in the sewers is continually increasing, and the same time decreasing the space occupied by the sewer gas, which of necessity is forced back up of the smaller sewers and out at any exit it may find.

The plan of flushing the sewers by letting in the tide at high water and out again at low water, only need be mentioned to be condemned; it has the same effect of forcing the sewer gas into houses, but with immensely augmented power. Similar results follow upon heavy rains, if the tide should just then be high. Should contrary winds accompany the rain, as it is sometimes the case, so as to keep the tide up in the river, the sewers may not be able to thoroughly empty themselves for several days together, for beside their usual complement of sewage, they then contain an immense quantity of storm water.

The result of this detention of sewage in the sewers is putrefaction of the organic material and evolution of dangerous and offensive gases.

This constitutes the nuisance complained of, and in order to obviate it, the sewage must be prevented as much as possible stagnating in the sewers, in other words, the sewers must be washed out clean and well aired; *i.e.*, they must be frequently cleaved, constantly flushed or irrigated, well ventilated, and provided with covered reservoirs.

The ventilation, to a considerable extent, has been accomplished, but it is desirable to carry this much further. Every sewer should be plentifully supplied with surface ventilators, and the head of every small sewer supplied with an iron ventilating tube, carried high above the surrounding houses. By thus exhausting the sewers through the pipes the surface ventilators will become really *inlets* of fresh air and not *exits* of sewer gas as is now the case.

The cleaning of the mud and soil from the interior of the sewers should be done frequently.

The flushing should be done every two or three days in summer, especially to those sewers near the beach. In winter possibly once a week would suffice. A volume of water, sufficient to fill the sewer, should be thrown down each time, so as to sweep before it every obstruction * * * *

Irrigation is the continual flow of a streamlet of water, and might with advantage be applied to those small sewers or drains which are laid at a level.

The construction of ample covered reservoirs, well ventilated, at the mouth of each sewer, as has been done at Gorleston, would meet the tidal difficulty completely; for in these receptacles the sewage could collect during the time the tide was too high to allow of its direct outflow into the river.

The Old Town (within the town walls) is drained with shorter and smaller sewers, having generally a westerly fall direct to the river. The surface drains in the rows, in a great measure obviate the necessity for underground sewers; indeed it would be somewhat difficult to construct sewers in the majority of the rows, for in digging a trench deep enough to take the drain, the stability of the property on either side would be endangered; hence only a few of the wider rows are underdrained. The "old town" sewers greatly need copious flushing and ventilating."

MEASLES and SCARLET FEVER were very pre-
valent, especially towards the end of the year. An
enormous number of children were attacked, but owing
probably to the mild autumn the mortality was very
light.

In pursuing my enquiries in relation to these
diseases, I visited many DAME SCHOOLS, and in the
majority of them I found a total disregard of the most
elementary sanitation. At a school of 40 children,
whose ages ranged between 4 and 13 years, no water-
closet whatever was provided. At another school I
found 54 children huddled up in a small room with a

Measles and
Scarlet Fever

Dame Schools.

Their
unwholesome-
ness illustrated

very low ceiling and windows closed. The heat and stench of this room can be better imagined than described, and to make matters worse "Washing day" was in full swing in an adjoining apartment. The door between the schoolroom and the wash-house was wide open so that the steam entered and filled the schoolroom. A common privy *for adults* was the only convenience of the kind this school could boast of. No play yards were to be found at any of the schools. Much of a like description could be said of many more of these Dame Schools I visited, but I should disgust you with the filthy details.

I can very honestly report these places unwholesome and detrimental to the healths of the children attending them. One thing is certain, that while these schools are allowed to remain in their present overcrowded and otherwise unsanitary state, Measles and Scarlet Fever will most surely have very congenial strongholds.

Puerperal
Fever.

Before leaving this part of my report, I must draw attention to the nine PUERPERAL FEVER deaths which happened in the early part of the year. There is no disease more melancholy in its incidence or more surely fatal in its issue than this fever. *The origin of the malady is attributed to several causes, but not the least potent appears to be sewer gas. The recent experiences at Bagshot Park most conclusively prove this.*

DEATHS AT SEA.

Unless the body of a person dying at Sea is brought on shore no inquest or enquiry of any kind takes place. In the case of a person falling into the

sea and drowning and the body not recovered, the captain of the vessel is only required to enter the occurrence in the Log Book if he keeps one, and when he arrives at port, to report the same at the Custom House. No official enquiry is made into the circumstances of the death, it being nobody's business to do so, and however culpable anyone may be in the matter no official investigates the affair unless some one of the survivors impute carelessness or culpability to his comrades, and the matter gets to the ears of the police. Amongst the fishing vessels especially, many deaths occur every year, which if investigated would no doubt throw blame on some one, but as the body is lost at sea and left there no official enquiry follows. Unless the body is brought on shore the death is not registered by the Registrar of Deaths, and as many of our seafaring population are lost at sea every year and their deaths not recorded in the towns mortality, our Death-rate is thus much lighter than it should be.

During 1880 there were reported at the Yarmouth Custom House 105 deaths at sea.

This matter really needs the attention of the Government. It would be a wise regulation were the survivors compelled to appear before a magistrate and each seaman apart from his comrades, upon oath, to relate all he knew of the fatality, and that where discrepancies of statement or other circumstances of the affair gave the magistrate reason to suspect culpability in any degree, that legal proceedings be instituted in due form.

SANITARY WORK.

NUISANCE REMOVAL.

Total number attended to by Inspectors	...	584
Remedied by the Inspectors' notice only	...	354
Referred to the Town Clerk to take proceedings—		
(a) For repairing and rebuilding privies	...	77
(b) For cleansing and repairing drains	...	66
(c) For closing impure wells	...	31
(d) For obtaining pure water supply from } Company's mains	...	21
(e) For the repair of troughing	...	11
(f) For connecting leading down spouts with } drains	...	7
(g) For cleansing rain water cisterns	...	4
(h) For the removal of manure, pigs, &c., and } for the cleansing of houses, yards, &c.		13

The new system of sewers in Cobholm Island the north part of Southtown is now complete.

The whole of that locality ought to be vastly improved by what you have done, for by means of the pumping engine, and the greater fall you have given the new sewers, the land and the houses should now be kept much dryer than was possible under the former arrangements.

In removing some of the old drains although they were of comparative recent construction, it was surprising to find how faulty they had been laid, and the gross carelessness with which the house drains had been connected, or rather *not* connected with them. The old public drains were laid upon such an uneven bed that the pipes had all sorts of inclinations, were

not always of the same size, and frequently broken. Almost every drain was found choked, and completely blocked in many places. The house drains were not connected with them by proper junctions, but let into them through holes knocked into the sewer pipes in the most careless manner. 'Twas by this means that many of the sewer pipes were smashed. In several instances the house drains stopped short of the sewer altogether, in fact ended in the earth, with no possibility of the sewage ever reaching the sewer.

The connecting of the house drains with the new sewers just laid should be done by your own men, and not left to any careless and ignorant labourer to accomplish. The Gas Company and the Water Company will only allow their own employees to tap their mains, and none but your own men well instructed in the work, should be allowed to break into your sewers.

In concluding this report, I beg to acknowledge the kind consideration and attention you have ever given to the recommendations and suggestions I have had the honor of submitting to you, and I also wish to testify to the assistance I have had in the discharge of my office from your officials generally.

I am, Gentlemen,

Yours obediently,

JOHN BATELY,

M. O. H.

